SECTION 2257 SIO

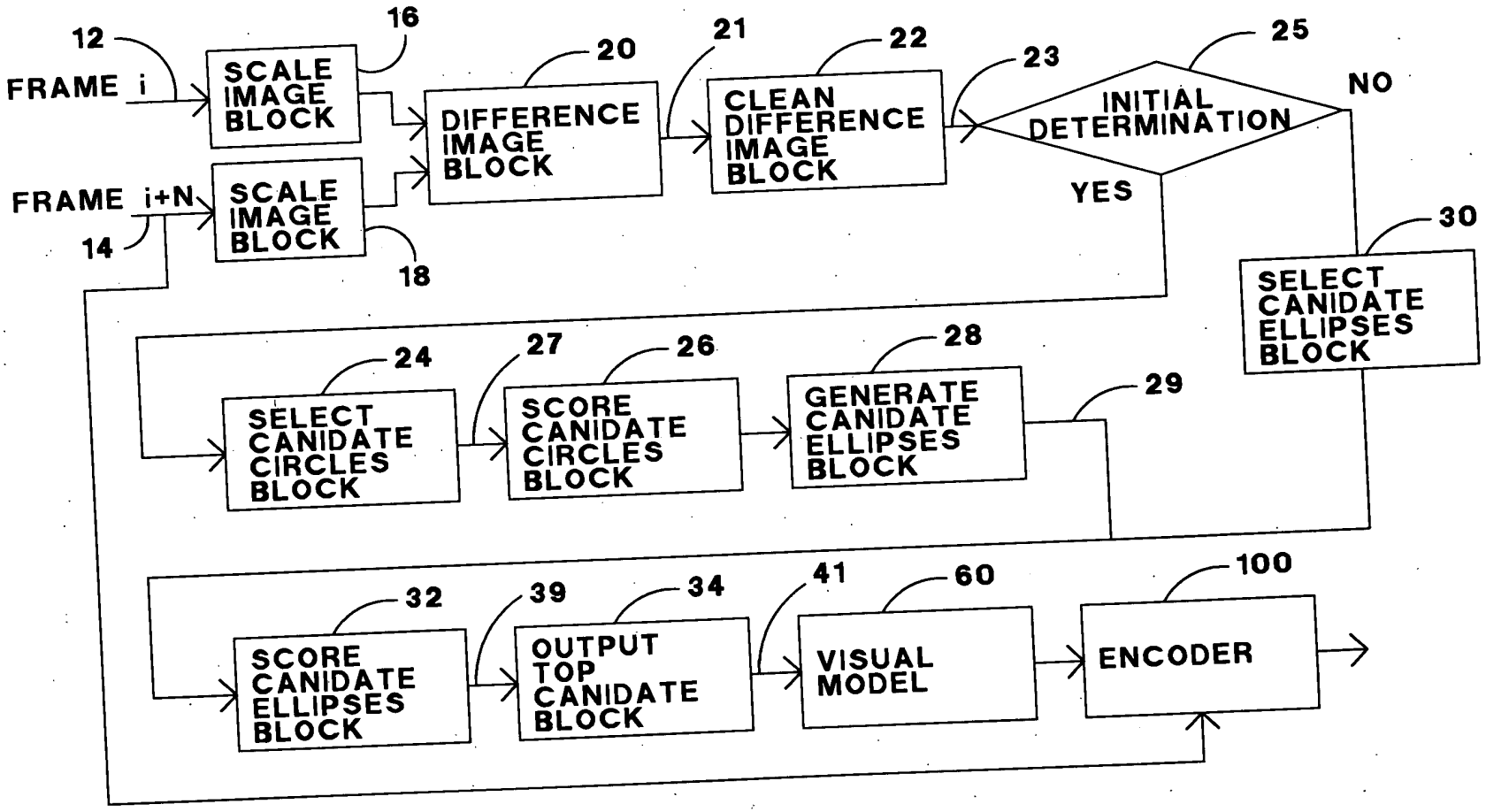

FIG. 1

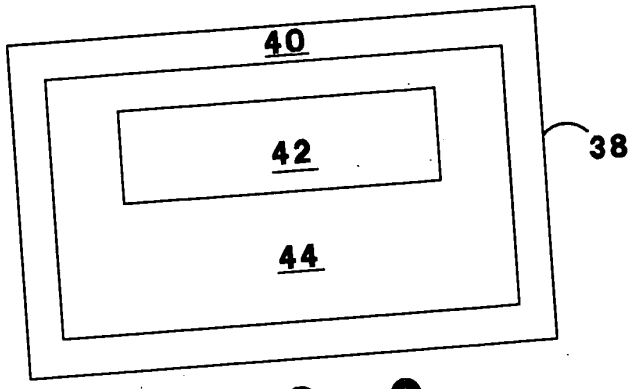

FIG. 2

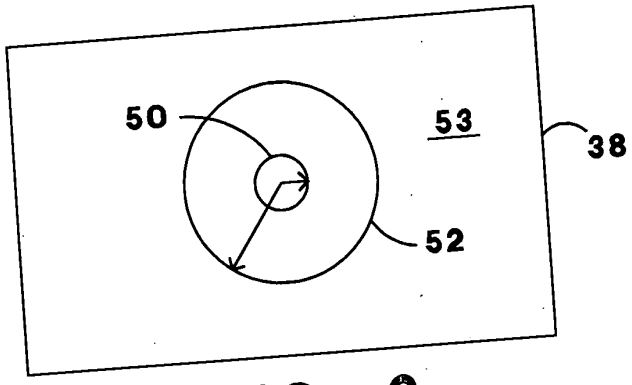

FIG. 3

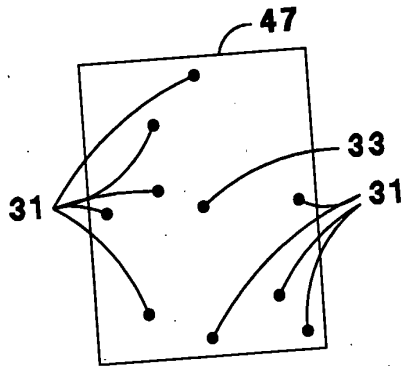

FIG. 4

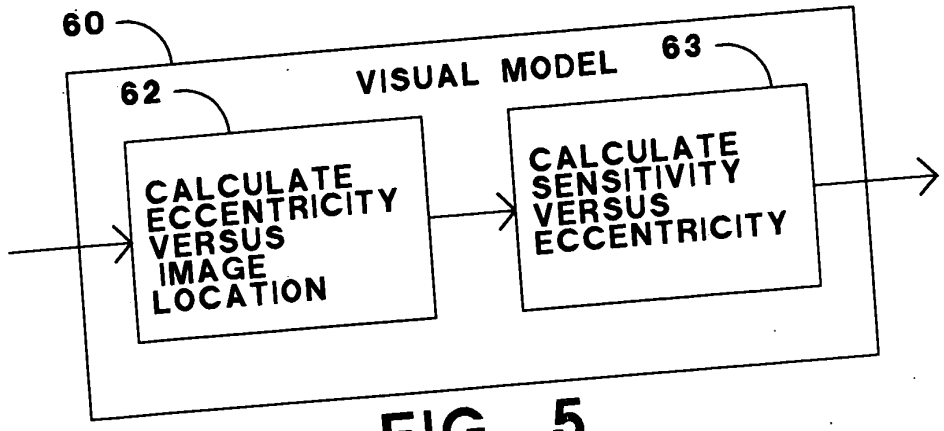

FIG. 5

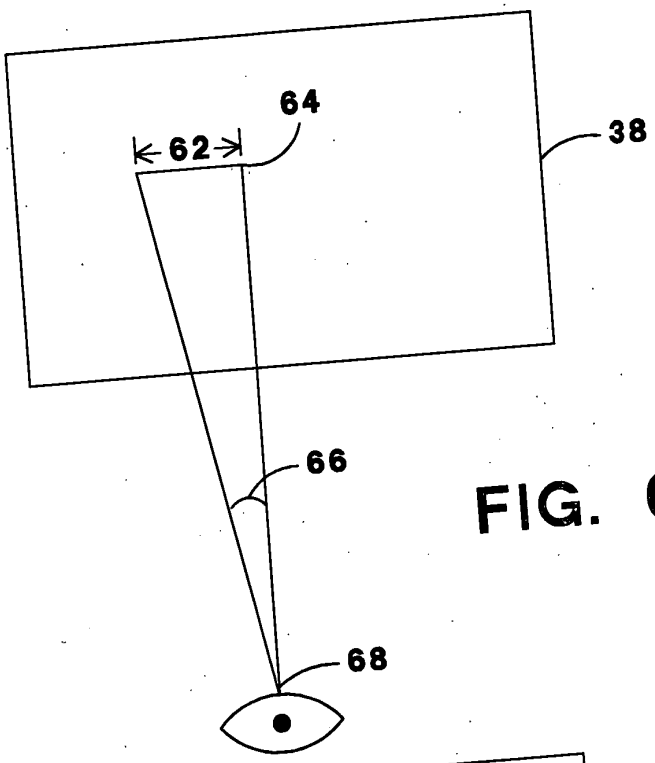

FIG. 6

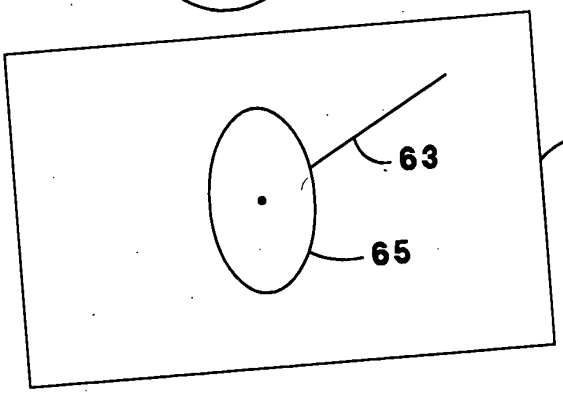

FIG. 7

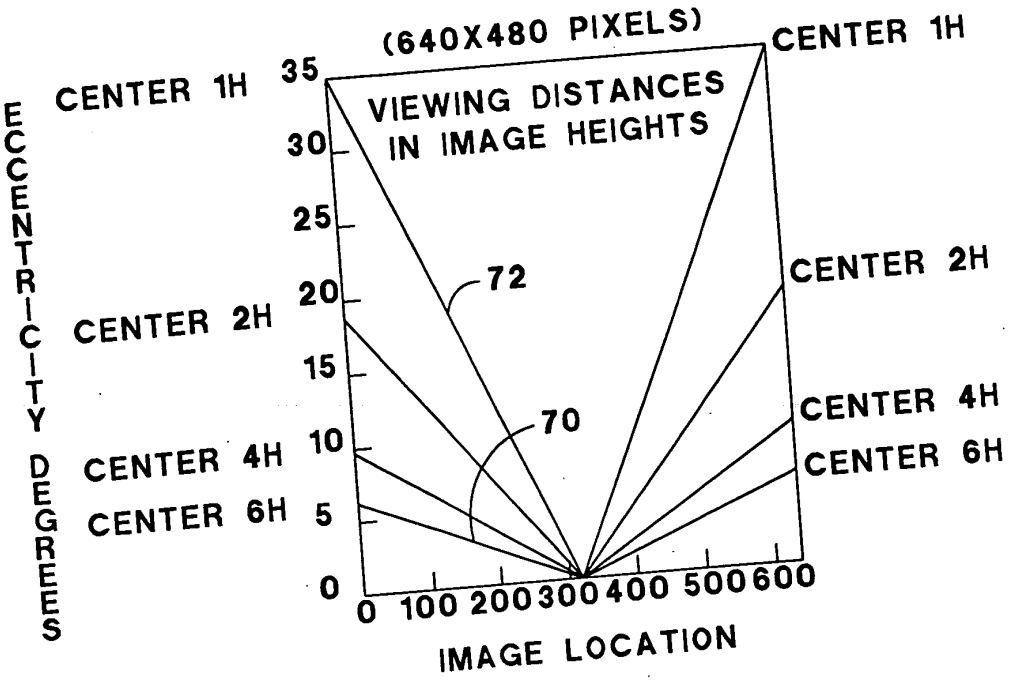
(640X480 PIXELS)
VIEWING DISTANCES
IN IMAGE HEIGHTS
CENTER 1H
CENTER 1H
CENTER 2H
CENTER 2H
CENTER 4H
CENTER 4H
CENTER 6H
CENTER 6H
72
70
ECCENTRICITY DEGREES
35
30
25
20
15
10
5
0
0 100 200 300 400 500 600
IMAGE LOCATION

FIG. 8

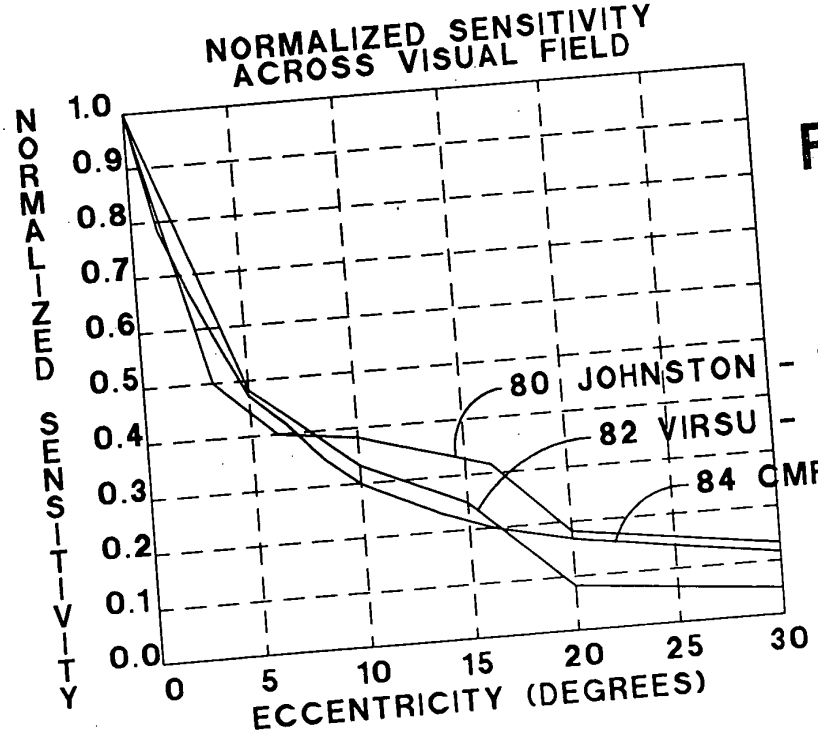
NORMALIZED SENSITIVITY
ACROSS VISUAL FIELD
NORMALIZED SENSITIVITY
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0
5
10
15
20
25
30
ECCENTRICITY (DEGREES)
80 JOHNSTON - H
82 VIRSU - H NASAL
84 CMF EQUATION K=.24

FIG. 9

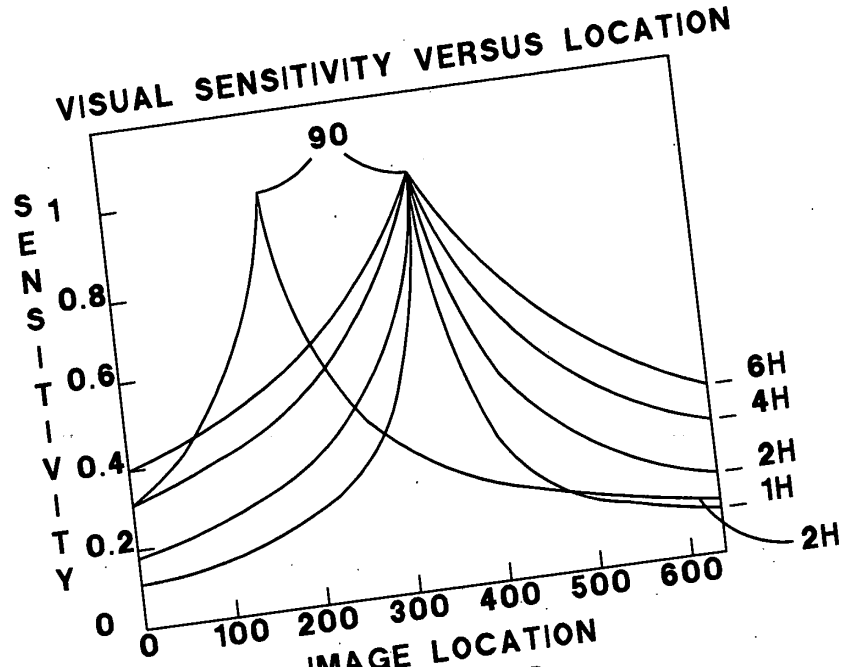
VISUAL SENSITIVITY VERSUS LOCATION
90
SENSITIVITY
1
0.8
0.6
0.4
0.2
0
0
100
200
300
400
500
600
IMAGE LOCATION
6H
4H
2H
1H
2H

FIG. 10

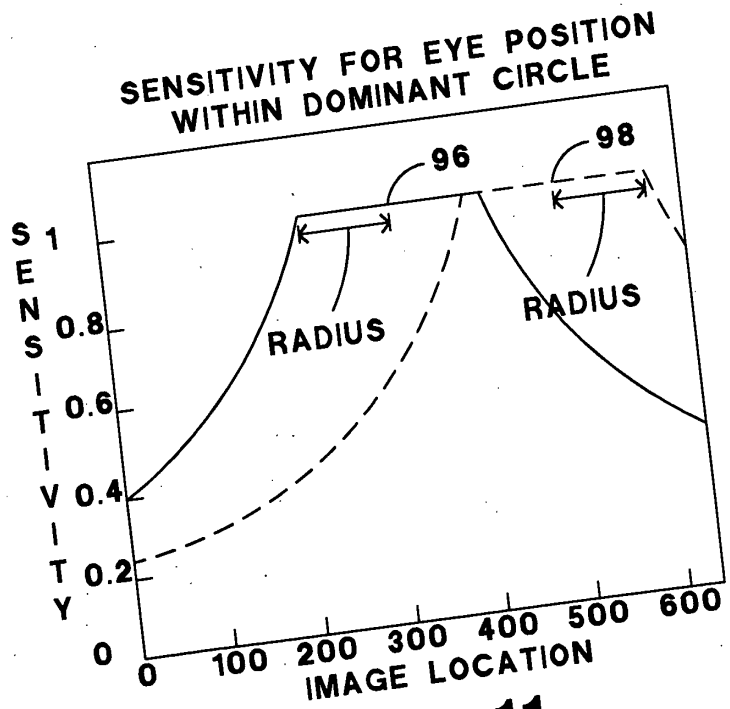
SENSITIVITY FOR EYE POSITION
WITHIN DOMINANT CIRCLE
96
98
RADIUS
RADIUS
SENSITIVITY
1
0.8
0.6
0.4
0.2
0
0
100
200
300
400
500
600
IMAGE LOCATION

FIG. 11

SECRET-E2378C3

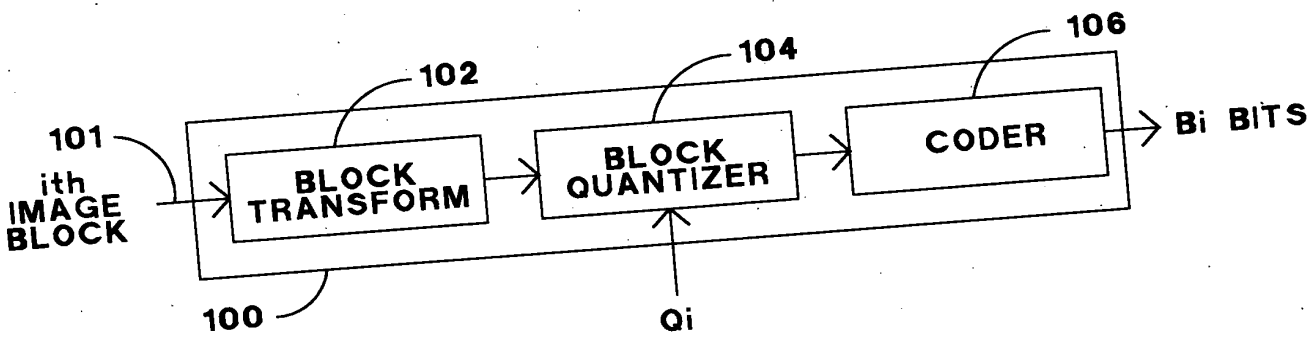

FIG. 12

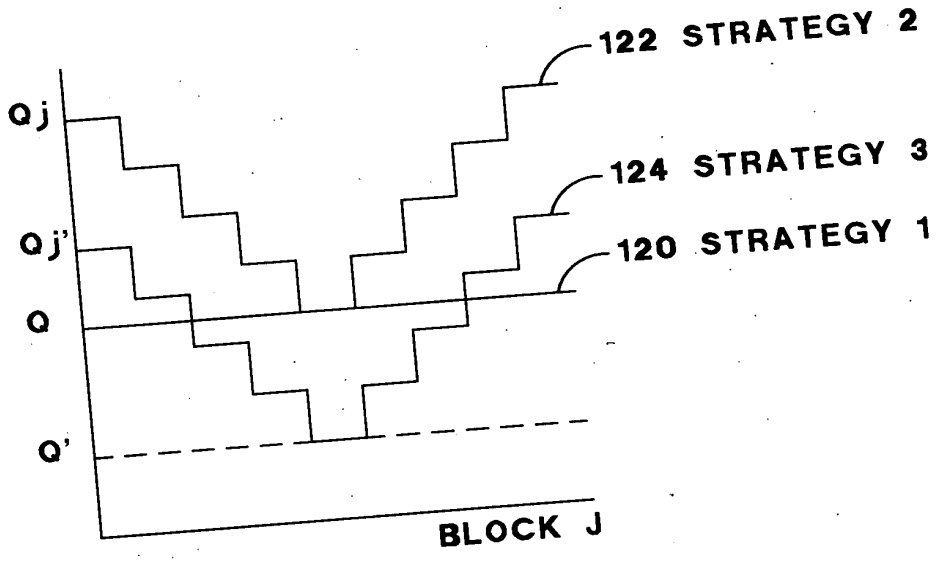

FIG. 13

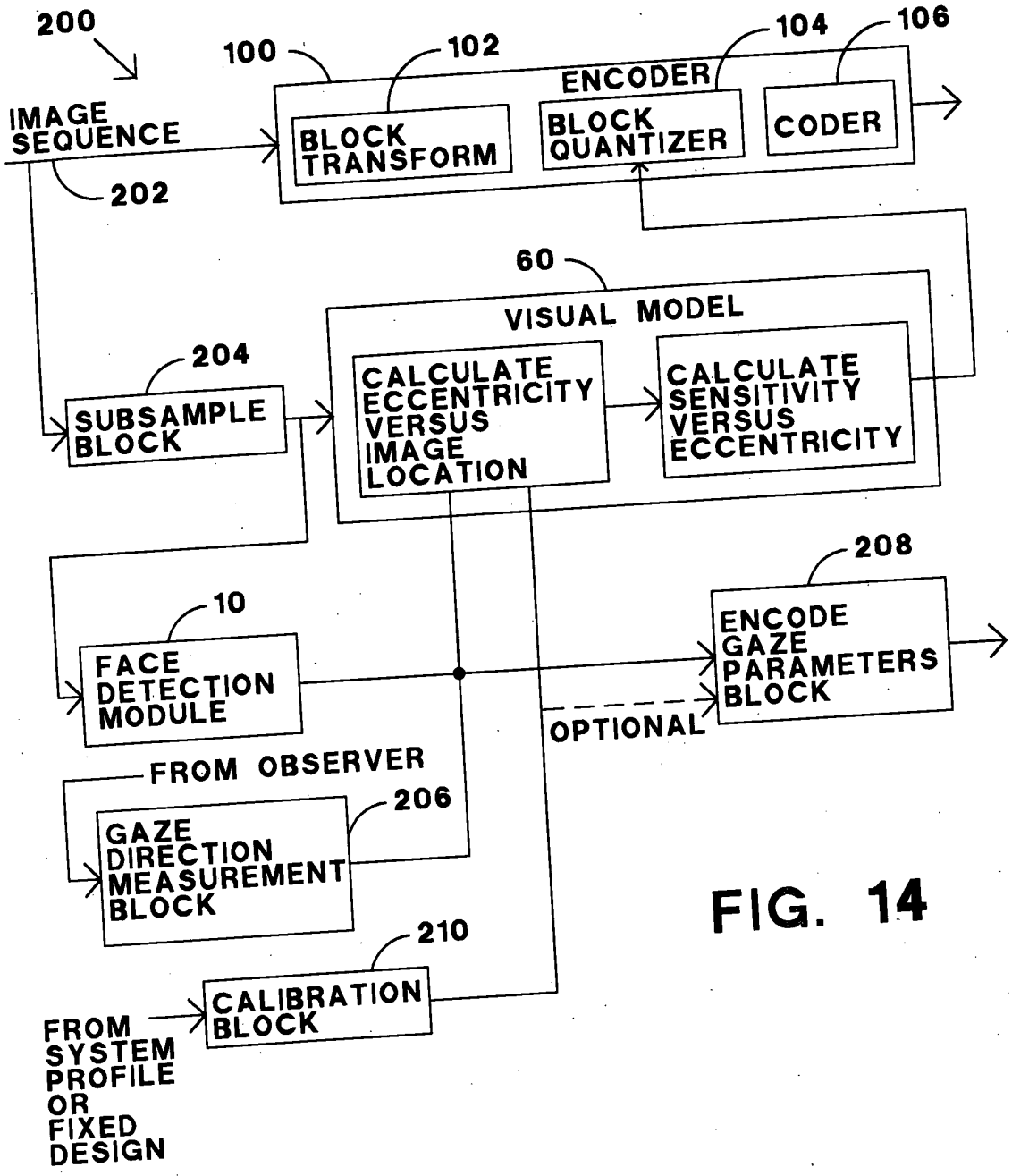
200
IMAGE SEQUENCE
202
100
102
ENCODER
104
106
BLOCK TRANSFORM
BLOCK QUANTIZER
CODER
60
VISUAL MODEL
204
SUBSAMPLE BLOCK
CALCULATE ECCENTRICITY VERSUS IMAGE LOCATION
CALCULATE SENSITIVITY VERSUS ECCENTRICITY
208
10
FACE DETECTION MODULE
ENCODE GAZE PARAMETERS BLOCK
OPTIONAL
FROM OBSERVER
206
GAZE DIRECTION MEASUREMENT BLOCK
210
CALIBRATION BLOCK
FROM SYSTEM PROFILE OR FIXED DESIGN

FIG. 14

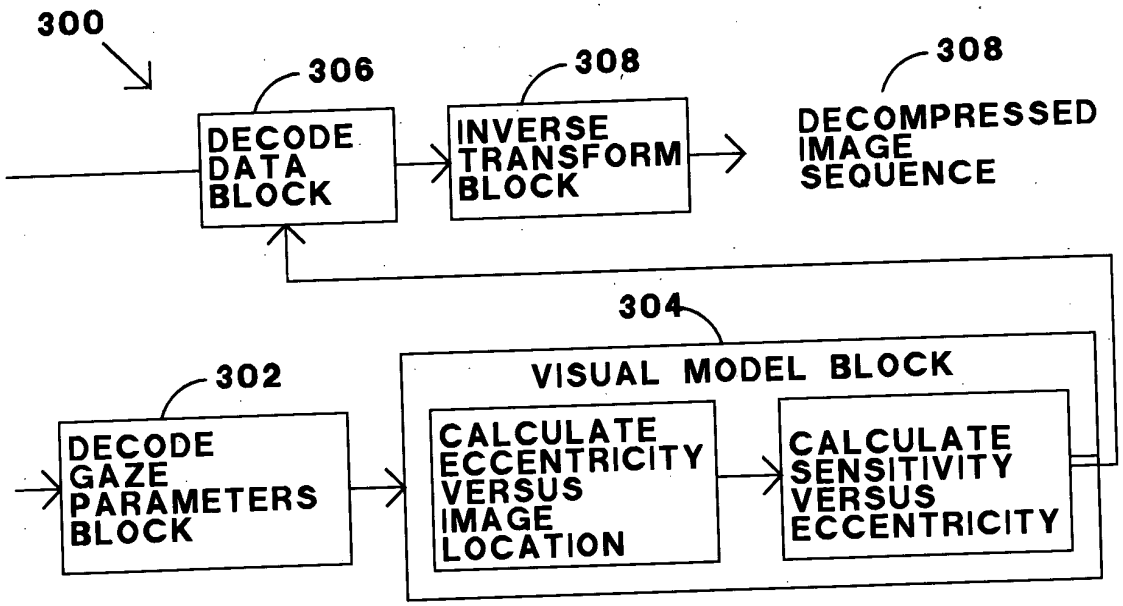
300
306
DECODE DATA BLOCK
308
INVERSE TRANSFORM BLOCK
308
DECOMPRESSED IMAGE SEQUENCE
304
VISUAL MODEL BLOCK
302
DECODE GAZE PARAMETERS BLOCK
CALCULATE ECCENTRICITY VERSUS IMAGE LOCATION
CALCULATE SENSITIVITY VERSUS ECCENTRICITY

FIG. 15